

CLAIMS

1. A polynucleotide comprising a nucleic acid sequence which encodes the polypeptide of Seq ID No 2, and homologues and fragments thereof.
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2. A polynucleotide as claimed in claim 1 which comprises the cDNA sequence of Seq ID No 1.
3. Polymorphic variants of the polynucleotide as claimed in claim 2, selected from the group in which:
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- i) T at position 3554 is replaced by G,
- ii) C at position 4828 is replaced by G,
- iii) T within an intronic region associated with ZGGBP1 is replaced by G,
- iv) C is inserted at position 4032.
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4. A polynucleotide which comprises an animal homologue of the nucleic acid claimed in claims 1-3.
5. A polynucleotide as claimed in claim 4 which comprises the cDNA sequence of Seq ID No 3, and homologues and fragments thereof.
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6. A polynucleotide which is capable of specifically hybridising to eight or more contiguous nucleotides comprised in Seq ID No 1 or Seq ID No 3 or comprised in the complementary strands thereof.
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7. A polynucleotide which comprises a ZGGBP1 gene fragment.
8. A vector comprising a polynucleotide of claims 1-7.
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9. A host cell transformed with a vector of claim 8.

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10. A polypeptide comprising the amino acid sequence of Seq ID No 2 and homologues and fragments thereof.

11. A polypeptide comprising the amino acid sequence of Seq ID No 4 and homologues
5 and fragments thereof.

12. A fusion protein in which a polypeptide of claim 10 or claim 11 is fused with glutathione-S-transferase.

10 13. A method for producing cells which express a polypeptide of claim 10 or claim 11 or a fusion protein of claim 12, comprising:

- a) culturing a host cell of claim 9 under conditions suitable for the expression of the polypeptide.
- b) recovering the polypeptide from the host cell culture.

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14. A method for identifying a compound capable of modulating the activity of a ZGGBP1 protein, which method comprises subjecting one or more test compounds to a screen comprising:

- a) a protein as claimed in claims 10-12 or a homologue or fragment thereof,
 - 20 or
 - b) a polynucleotide as claimed in claims 1-7 or a homologue or fragment thereof,
 - or
 - c) a host-cell expressing a polypeptide of a ZGGBP1 molecule,
- and measuring an effect of the test compound on ZGGBP1 activity.

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15. A compound that modulates the activity of a human ZGGBP1 identified by the method of claim 14.

16. A pharmaceutical composition comprising a compound that modulates the activity of a
30 protein identified by the method of claim 14.

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17. A diagnostic assay for the detection of ZGGBP1, which assay comprises measuring the presence or absence of ~~a protein~~ as claimed in claims 10-12 or a polynucleotide as claimed in claims 1-7.
- 5 18. An antisense molecule comprising a complement of the polynucleotide in ~~claims 1-7~~ or a biologically effective fragment thereof.
19. Use of a polynucleotide as claimed in ~~claims 1-7 or claim 18~~ in gene therapy.
- 10 20. An antibody specific for a protein of ~~claims 10-12~~ or fragments thereof.
21. A set of amplification primers for selective amplification of a ZGGBP1 gene sequence.